

From: [Little, Shauna](#)
To: [DeMeo, Sharon M.](#)
Cc: [Curley, Michael](#)
Subject: FW: Incorporating increase precipitation into SW permits
Date: Wednesday, January 20, 2021 7:29:03 AM

Hi Sharon,

With the MSGP now final, I am going to update the citation in the Chelsea terminal permits to reflect. Some changes were made to the Major Storm Events BMP, indicated by Dave Gray, below, which I will incorporate as well. Let me know if you would like to coordinate for Exxon.

Regards,
Shauna Little
Physical Scientist
Water Division
U.S. EPA Region I
Phone: (617) 918-1989

From: Gray, Davidj <gray.davidj@epa.gov>
Sent: Friday, January 15, 2021 12:43 PM
To: Houlihan, Damien <houlihan.damien@epa.gov>
Cc: Little, Shauna <Little.Shauna@epa.gov>
Subject: Re: Incorporating increase precipitation into SW permits

Hi Damien & Shauna -

Following up on discussions regarding the subject topic we had some time ago, the 2021 MSGP will be finalized today and become effective on March 1st. The final language is largely as proposed and will require that operators consider implementing enhanced stormwater control measures for facilities that could be impacted by major storm events, such as hurricanes, storm surge, and flood events. The permit will not require operators to implement additional controls if the operator determines such controls to be unnecessary, but it will require operators to consider the benefits of selecting and designing control measures that reduce risks to their industrial facility and the potential impact of pollutants in stormwater discharges caused by major storm events. See excerpt below that highlights relevant language and indicates revised final text in red:

2. Control Measures and Effluent Limits

In the technology-based limits included in Parts 2.1 and 8, the term “minimize” means to reduce and/or eliminate to the extent achievable using stormwater control measures (SCMs) (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice. The term “infeasible” means not technologically possible or not economically practicable and achievable in light of best industry practices. EPA notes that it does not intend for any permit requirement to conflict with state water rights law.

2.1 Stormwater Control Measures

You must select, design, install, and implement stormwater control measures (including best management practices) to minimize pollutant discharges that address the

selection and design considerations in Part 2.1.1, meet the non-numeric effluent limits in

Part 2.1.2, meet limits contained in applicable effluent limitations guidelines in Part 2.1.3,

and meet the water quality-based effluent limitations in Part 2.2.

The selection, design, installation, and implementation of control measures to comply with Part 2 must be in accordance with good engineering practices and manufacturer's specifications. Note that you may deviate from such manufacturer's specifications where you provide justification for such deviation and include documentation of your rationale in the part of your SWPPP that describes your control measures, consistent with Part 6.2.4. You must modify your stormwater control measures

per Part 5.1 if you find that your control measures are not achieving their intended effect of minimizing pollutant discharges (i.e., your discharges will be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards or meet any of the other non-numeric effluent limits in this permit). Regulated stormwater discharges from your facility include stormwater run-on that commingles with stormwater discharges associated with industrial activity at your facility.

2.1.1 Stormwater Control Measure Selection and Design Considerations. You must consider

the following when selecting and designing control measures:

2.1.1.1 Preventing stormwater from coming into contact with polluting materials is generally

more effective, and less costly, than trying to remove pollutants from stormwater;

2.1.1.2 Using stormwater control measures in combination may be more effective than using

control measures in isolation for minimizing pollutants in your stormwater discharge;

2.1.1.3 Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective stormwater control measures that will achieve the limits in this permit;

2.1.1.4 Minimizing impervious areas at your facility and infiltrating stormwater onsite (including

bioretention cells, green roofs, and pervious pavement, among other approaches) can reduce the frequency and volume of discharges and improve ground water recharge and stream base flows in local streams, although care must be taken to avoid ground water contamination;

2.1.1.5 Attenuating flow using open vegetated swales and natural depressions can reduce instream impacts of erosive flows;

2.1.1.6 Conserving and/or restoring riparian buffers will help protect streams from stormwater

discharges and improve water quality;

2.1.1.7 Using treatment interceptors (e.g., swirl separators and sand filters) maybe appropriate

in some instances to minimize the discharge of pollutants; and

2.1.1.8 Implementing structural improvements, enhanced/resilient pollution prevention measures, and other mitigation measures can help to minimize impacts from stormwater discharges from major storm events ~~[that cause extreme flooding conditions]~~

such as hurricanes, storm surge, extreme/heavy precipitation^[5] and flood events. If such

stormwater control measures are already in place due to existing requirements mandated

by other state, local or federal agencies, you should document in your SWPPP a brief description of the

controls and a reference to the existing requirement(s). If your facility may be exposed to or has previously experienced such major storm events^[6] additional stormwater control measures that may be considered include, but are not limited to:

- a. Reinforce materials storage structures to withstand flooding and additional exertion of force;
- b. Prevent floating of semi-stationary structures by elevating to the Base Flood Elevation (BFE)^[7] level or securing with non-corrosive device;
- c. When a delivery of exposed materials is expected, and a storm is anticipated within 48 hours, delay delivery until after the storm or store materials as appropriate (refer to emergency procedures);
- d. Temporarily store materials and waste above the BFE level;
- e. Temporarily reduce or eliminate outdoor storage;
- f. Temporarily relocate any mobile vehicles and equipment to higher ground;
- g. Develop scenario-based emergency procedures for major storms that are complementary to regular stormwater pollution prevention planning and identify emergency contacts for staff and contractors; and
- h. Conduct staff training for implementing your emergency procedures at regular intervals.

Note: Part 2.1.1 requires that you must consider Parts 2.1.1.1 through 2.1.1.8 when selecting and designing control measures to minimize pollutant discharges via stormwater. Part 2.1.1 does not require nor prescribe specific control measure to be implemented; however, you must document in your SWPPP per Part 6.2.4 the considerations made to select and design control measures at your facility to minimize pollutants discharged via stormwater.

5 Heavy precipitation refers to instances during which the amount of rain or snow experienced in a location substantially exceeds what is normal. What constitutes a period of heavy precipitation varies according to location and season. Heavy precipitation does not necessarily mean the total amount of precipitation at a location has increased—just that precipitation is occurring in more intense or more frequent events.

6 To determine if your facility is susceptible to an increased frequency of major storm events that could impact the discharge of pollutants in stormwater, you may reference FEMA, NOAA, or USGS flood map products at https://www.usgs.gov/faqs/where-can-i-find-flood-maps?qt-news_science_products=0#qt-news_science_products.

7 Base Flood Elevation (BFE) is the elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM) for zones AE, AH, A1–A30, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, V1–V30 and VE. (Source: <https://www.fema.gov/node/404233>). The FEMA Flood Map Service Center can be accessed through <https://msc.fema.gov/portal/search>.

From: Houlihan, Damien <houlihan.damien@epa.gov>

Sent: Thursday, April 9, 2020 10:39 AM

To: Gray, Davidj <gray.davidj@epa.gov>

Subject: RE: Incorporating increase precipitation into SW permits

Thanks, Dave. Super helpful. Let me know your thoughts.

Damien

Damien Houlihan, Chief

Industrial Permits Section

US EPA

617 918-1586

From: Gray, Davidj <gray.davidj@epa.gov>

Sent: Thursday, April 09, 2020 10:27 AM

To: Houlihan, Damien <houlihan.damien@epa.gov>

Subject: Re: Incorporating increase precipitation into SW permits

Hi Damien,

Ex. 5 - Delib. Process

[REDACTED]

I'll take a look at Samir's summary now and do some more thinking on it.

Thanks,

Dave

From: Houlihan, Damien <houlihan.damien@epa.gov>

Sent: Wednesday, April 8, 2020 11:00 AM

To: Gray, Davidj <gray.davidj@epa.gov>

Subject: RE: Incorporating increase precipitation into SW permits

Thanks, Dave. **Ex. 5 - Delib. Process**

After you get a chance to take a look, I think it makes sense to get the team together for a call with you. Thanks.

Damien

Damien Houlihan, Chief

Industrial Permits Section

US EPA

617 918-1586

From: Gray, Davidj <gray.davidj@epa.gov>

Sent: Wednesday, April 08, 2020 10:17 AM

To: Houlihan, Damien <houlihan.damien@epa.gov>

Subject: Re: Incorporating increase precipitation into SW permits

Hi Damien - Doing well thanks and hope you are too!

Yes, I'm happy to discuss and review permit documents. Not very hard hitting, but basically the Draft 2020 MSGP is specifically requesting comment on requiring operators to *consider* certain enhanced controls to address major storms that cause extreme flooding and how best to identify facilities that are at high risk of impact.

(Though you won't find mention of climate change or sea-level rise anywhere; rather it is kept in terms of flooding and FEMA maps.) The enhanced controls are mostly commonsensical consistent emergency planning procedures to prevent the inundation of materials and equipment to mitigate pollutant discharges, ranging from temporarily moving materials upland or above flood elevation to more significant improvements of elevating or otherwise securing structures in the flood zone.

Ex. 5 - Delib. Process

Dave

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David J. Gray, P.E.

Stormwater & Construction Section

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**From:** Houlihan, Damien <[houlihan.damien@epa.gov](mailto:houlihan.damien@epa.gov)>

**Sent:** Tuesday, April 7, 2020 11:01 AM

**To:** Gray, Davidj <[gray.davidj@epa.gov](mailto:gray.davidj@epa.gov)>

**Subject:** Incorporating increase precipitation into SW permits

Good morning, David –

Hope you are doing well. As you know we're working on several permits for bulk terminal facilities in Chelsea. The are mostly SW permits, but do include some conditions related to hydrostatic test water and some other minor discharges.

Anyway, we anticipate receiving comments relative to BMPs and SWPPP related to climate change. CLF has sued Exxon-Mobile for not addressing increased precipitation (and possibly sea level rise) in their current permit's BMPs/SWPPP. The court recently stayed that case pending re-issuance of that permit. In effect, the judge said EPA should figure this out rather than the courts. Our plan is to first issue the Chelsea Creek permits, and then turn to Exxon's.

Shauna has been looking through the proposed 2020 MSGP and has incorporated some language from it. We're hoping we can have you provide some insight as to HQ thinking on this issue, how it's described in the draft MSGP, and then review our fact sheet and permit conditions related to it.

I understand you'll be starting your 30 day acting gig tomorrow, but I was hoping you'd still have some time. Please let me know if you can help review. Thanks.

Damien

*Damien Houlihan, Chief*

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*US EPA*

*617 918-1586*